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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/477,703 06/07/95 HINDERKS

M RCH-22164-G-

QM02/0406

EXAMINER

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KAMEN, N

ART UNIT PAPER NUMBER

3747

29

DATE MAILED: 04/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	08/477703	Applicant(s)	Hinderks
Examiner	KAMEN	Group Art Unit	3747

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

Responsive to communication(s) filed on March 23, 99 + 10/30/98.
 This action is FINAL.
 Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 1 1; 453 O.G. 213.**

Disposition of Claims

Claim(s) 57, 55, 60-110 is/are pending in the application.
Of the above claim(s) _____ is/are withdrawn from consideration.
 Claim(s) _____ is/are allowed.
 Claim(s) 54, 55, 60-63, 66-79, 72-80, 82, 83, 86, 88-99, 105, 106, 108-110 is/are rejected.
 Claim(s) 64, 65, 71, 81, 84, 85, 87, 100-104, 107 is/are objected to.
 Claim(s) _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
 The proposed drawing correction, filed on _____ is approved disapproved.
 The drawing(s) filed on _____ is/are objected to by the Examiner.
 The specification is objected to by the Examiner.
 The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 All Some* None of the CERTIFIED copies of the priority documents have been received.
 received in Application No. (Series Code/Serial Number) _____.
 received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ Interview Summary, PTO-413
 Notice of References Cited, PTO-892 Notice of Informal Patent Application, PTO-152
 Notice of Draftsperson's Patent Drawing Review, PTO-948 Other _____

Office Action Summary

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DETAILED ACTION

1. The notice of abandonment in paper 27 was improper and therefore withdrawn.

Claim Rejections - 35 USC § 112

2. Claims 54, 72, 74, and 90-97 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 54, since there are a plurality of projections and depressions, change "at least one" to --at least two--.

Claim 72 is superfluous-it adds nothing to claim 71.

Claim 74 is a method concept.

Claims 90-97 are merely catalogs of parts.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 61-63, 66, 73-75, 77-80, 83, 86, 98, 99, 106, 108, are rejected under 35 U.S.C. 102(b) as being anticipated by Brown.

In regard to claim 63, all material is thermally insulating to some degree. In regard to claims 98 and 99, the depressions read on surface imperfections.

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Claim Rejections - 35 USC § 103

5. Claims 67-70, 76, 82, 88-97, 105, 109, 110 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown.

In regard to claim 67, scotch yokes are deemed functional equivalents of crankshafts. In regard to claims 68 and 69, the use of ceramic materials in engines is well known for the advantage of higher efficiency. In regard to claim 70, oppositely acting pistons are well known. In regard to claim 76, to make any element integral or separate would be obvious-using bolts for assembling components is notoriously old. In regard to claim 82, the filamentary material reads on a common air filter. In regard to claims 88 and 105, to have any engine operate a pump/compressor would have been obvious. In regard to claims 89-97, to use a piston/cylinder assembly in any of the recited power systems would be obvious.

The point of novelty appears to lie with the multiple depressions/extensions. In any case, it is not clear what applicant considers to be prior art and how the present invention is an improvement over the prior art. What problems does the present invention solve? The remaining claims appear to combine well known elements in various combinations.

Allowable Subject Matter

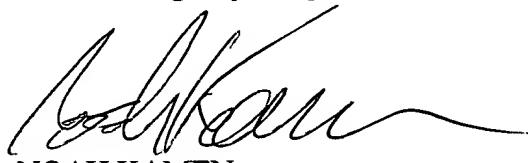
6. Claims 64, 65, 71, 81, 84, 85, 87, 100-104, 107 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. Claims 54 and 55 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. **Applicant is requested to provide a courtesy copy of the claims indicating which figure(s) illustrate the limitations(s) and where in the specification there is basis for each claim.**

Inquiries concerning the examiner's action should be directed to Noah Kamen at (703) 308-1945. The supervisory examiner, Henry Yuen, can be called at 308-1946. Fax is 308-7764. Questions of a general nature concerning the application should be directed to the group receptionist at 308-0861.



NOAH KAMEN
PRIMARY EXAMINER
ART UNIT 3747

April 4, 2000